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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
FOX, JAMAL A	

ART UNIT	PAPER NUMBER
2664	

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/681,677	MATTESON ET AL.	
	Examiner	Art Unit	
	Jamal A Fox	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 May 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☒ Claim(s) *2* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *18 May 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/12/2001*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. New corrected drawings in compliance with 37 CFR 1.121(d) are required in this application because the text is illegible. Reference characters, sheet numbers, and view numbers must be plain and legible. Applicant is advised to employ the services of a competent patent draftsperson outside the Office, as the U.S. Patent and Trademark Office no longer prepares new drawings. The corrected drawings are required in reply to the Office action to avoid abandonment of the application. The requirement for corrected drawings will not be held in abeyance.

Claim Objections

2. Claim 2 is objected to because of the following informalities: In claim 2, line 3, "and" needs to be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7 and 14-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Dobbins et al. (U.S. Patent No. 5,790,546).

Referring to claim 7, Dobbins et al. discloses a network system (Fig. 4) comprising: a plurality of communications devices (Fig. 4, Networking Modules 32 and respective portions of the spec.) configured to communicate with each other (networking

connectivity between modules, col. 13 lines 41-48); a wire network (Fig. 1 and respective portions of the spec.) configured to interconnect said communications devices and allow a plurality of communication transmissions (transmissions, col. 14 lines 29-34, col. 19 lines 15-22 and col. 23 lines 13-18) between said communication devices; and a network connectivity device (Fig. 4, Network Chassis 30) connected to said wire network, said connectivity device configured to: bring segments (segments, col. 13 lines 48-53) of said wire network together such that said communication devices are interconnected; provide communication transmissions by said communications devices with independent paths (paths, col. 3 lines 59-61 and col. 17 lines 14-17) through said wire network such that communication collisions are reduced (Fig. 6, Fault Tolerant Design); amplify communication transmissions such that the distance between said communications device is extended (Fig. 4, repeater modules); and route (Fig. 4, router modules) communication transmissions through said wire network.

Referring to claim 14, Dobbins et al. discloses a network connectivity device comprising a central processing unit (Fig. 6, CPU) connected to a electronic storage device (Fig. 2, Packet RAM), a hub module (Fig. 6 ref. sign 30), a switch module (Fig. 6, Switching), a repeater module (repeater module, col. 13 lines 34-41) and a router module (Fig. 6, Router), said connectivity device connected to a wire network (Fig. 1 and respective portions of the spec.) interconnecting a plurality of communication devices, said connectivity device configured to: utilize said hub module to bring segments (segments, col. 13 lines 48-53) of the wire network together; utilize said switch module to provide communication transmissions by the communications devices

with independent paths (paths, col. 3 lines 59-61 and col. 17 lines 14-17) through the wire network such that communication collisions are reduced (fault tolerance, col. 14 lines 52-56 and Fig. 6, Fault Tolerant Design); utilize said repeater module (repeater module, col. 13 lines 34-41) to amplify communications transmissions such that the distance between the communications devices is extended (this is inherent); and utilize said router module (Fig. 6, Router) to route (this is inherent) communication transmissions through the wire network.

Referring to claim 15, Dobbins et al. discloses a network connectivity device (Fig. 6) in accordance with claim 14 further configured to connect at least one communication device to a wire network (LAN segment, col. 13 lines 48-53).

Referring to claim 16, Dobbins et al. discloses a network connectivity device in accordance with claim 14 further configured to function in a network system comprising at least one of a network hub (Fig. 6 ref. sign 30), a network switch (Fig. 6, Switching), a network repeater (repeater module, col. 13 lines 34-41), and a network router (Fig. 6, Router).

Referring to claim 17, Dobbins et al. discloses a network connectivity device in accordance with claim 14 further configured to function in a network system having a topology comprising at least one of a daisy-chain configuration, a ring configuration (Token Ring, col. 13 lines 48-53) and a star configuration.

Referring to claim 18, Dobbins et al. discloses a network connectivity device in accordance with claim 14 further configured to be at least one of a network fault tolerant

device (C++ OOP, col. 14 lines 20-25 and fault tolerance, col. 14 lines 52-56) and a network fault tolerant management device (management network, col. 14 lines 20-25).

Referring to claim 19, Dobbins et al. discloses a network connectivity device in accordance with claim 14 further configured to enable SPOC (given port, col. 11 lines 10-15) capabilities with a network system.

Referring to claim 20, Dobbins et al. discloses a network connectivity device in accordance with claim 14 wherein said connectivity device (Fig. 6) is a network node utilized in a communications network system comprising a plurality of communications devices (Fig. 1) interconnected by a wire network (LAN segment, col. 13 lines 48-53).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subramaniam et al. (U.S. Patent No. 6,070,187).

Referring to claim 1, Subramaniam et al. discloses a method for forming a network (Fig. 2, ref. sign 26) including a plurality of communication devices (Fig. 2, ref. signs, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 50, 54, 58, 60, 62, 64, 68 and 69), a wire network (Fig. 2, LAN Segment 48, 52 and 56 and respective portions of the spec.) for allowing a plurality of communication transmissions between the communications devices, and at least one connectivity device connected to the wire network, said

method comprising the steps of: utilizing the connectivity device (Fig. 2, Hub and col. 2 lines 59-60) to bring segments of the wire network together such that the communication devices are interconnected (interconnects, col. 2 lines 45-58); utilizing the connectivity device to provide communication transmissions by the communications devices (Fig. 2 ref. signs 58 and 60); collisions (collision, col. 2 line 65-col. 3 line 5) are reduced; and utilizing the connectivity device to route (route, col. 3 lines 20-29) communication transmissions by the communications devices (Fig. 2, Routers) through the wire network, but does not explicitly teach of independent paths through the wire network and utilizing the connectivity device to regenerate a communication signal such that the distance between the communications device is extended. However, LAN segments are disclosed in col. 2 line 59 - col. 3 line 5 and repeaters are disclosed in Fig. 2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included independent paths through the wire network and utilizing the connectivity device to regenerate a communication signal such that the distance between the communications device is extended because **each node receives a signal** when another node attempts to transmit a packet and repeaters connect multiple segments listening to each segment and repeating the signal heard on one segment onto every other segment connected to the repeater.

Referring to claim 2, Subramaniam et al. discloses a method in accordance with claim 1 further comprising the steps of: connecting one of the connectivity devices (Fig. 2, Hub, col. 2 lines 59-60 and col. 3 lines 1-6) to a communications device (Fig. 2,

Network Node); and connecting the communications device (Fig. 2, Network Node) to the wire network (LAN segment, col. 3 lines 1-6) utilizing the connectivity device.

Referring to claim 3, Subramaniam et al. discloses a method in accordance with claim 1 further comprising the step of configuring the network to include at least one of a network hub device (Fig. 2, Hubs and respective portions of the spec.), a network switch device (Fig. 2, Switches and respective portions of the spec.), a network repeater device (Fig. 2, Repeaters and respective portions of the spec.) and a network router device (Fig. 2, Routers and respective portions of the spec.).

Referring to claim 4, Subramaniam et al. discloses a method in accordance with claim 1 further comprising the step of utilizing the connectivity device in a wire network having a topology of at least one of a daisy-chain configuration (Fig. 2), a ring configuration, and a star configuration.

Referring to claim 5, Subramaniam et al. discloses a method in accordance with claim 1 further comprising the step of utilizing the connectivity device to enable Single Point of Contact (SPOC) (Ethernet network adapter, col. 2 lines 46-53) capability within the network.

Referring to claim 6, Subramaniam et al. discloses a method in accordance with claim 1 further comprising the step of utilizing the connectivity device as at least one of a network fault tolerant device (Ethernet Protocol, col. 2 line 65-col. 3 line 1) and a network fault tolerant management device (Media Access Control, col. 3 lines 10-18).

Referring to claim 7, Subramaniam et al. discloses a network system (Fig. 2, ref. sign 26) comprising: a plurality of communications devices (Fig. 2, ref. signs, 28, 30,

32, 34, 36, 38, 40, 42, 44, 46, 50, 54, 58, 60, 62, 64, 68 and 69) configured to communicate with each other; a wire network (Fig. 2, LAN Segment 48, 52 and 56 and respective portions of the spec.) configured to interconnect (interconnects, col. 2 lines 45-58) said communications devices and allow a plurality of communication transmissions between said communication devices; and a network connectivity device (Fig. 2, Hub and col. 2 lines 59-60) connected to said wire network, said connectivity device configured to: bring segments of said wire network together such that said communication devices are interconnected (interconnects, col. 2 lines 45-58); provide communication transmissions by said communications devices (Fig. 2 ref. signs 58 and 60); collisions (collision, col. 2 line 65-col. 3 line 5) are reduced; and route (route, col. 3 lines 20-29) communication transmissions through said wire network, but does not explicitly teach of independent paths through the wire network and amplifying communication transmissions such that the distance between said communications device is extended. However, LAN segments are disclosed in col. 2 line 59 - col. 3 line 5 and repeaters are disclosed in Fig. 2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included independent paths through the wire network and amplifying communication transmissions such that the distance between said communications device is extended because **each node receives a signal** when another node attempts to transmit a packet and repeaters connect multiple segments listening to each segment and repeating the signal heard on one segment onto every other segment connected to the repeater.

Referring to claim 8, Subramaniam et al. discloses a system in accordance with claim 7, wherein each said communication device (Fig. 2, ref. signs 28, 30, 32, 34, 36, 38, 40, 42 and 44) is connected to said wire network (Fig. 2, LAN Segment 48, 52 and 56 and respective portions of the spec.) using one of said network connectivity devices (Fig. 2, Hub and col. 2 lines 59-60).

Referring to claim 9, Subramaniam et al. discloses a system in accordance with claim 7 wherein said network system further comprises at least one of a network hub device (Fig. 2, Hubs and respective portions of the spec.), a network switch device (Fig. 2, Switches and respective portions of the spec.), a network repeater device (Fig. 2, Repeaters and respective portions of the spec.), and a network router device (Fig. 2, Routers and respective portions of the spec.).

Referring to claim 10, Subramaniam et al. discloses a system in accordance with claim 7 wherein said wire network comprises a means (Fig. 2, ref. signs 59, 61 and 72) suitable for carrying data and communication transmissions.

Referring to claim 11, Subramaniam et al. discloses a system in accordance with claim 7 wherein said connectivity device configured to operate when said wire network uses a topology of at least one of a daisy-chain (Fig. 2, ref. sign 26) configuration, a ring configuration, and a star configuration.

Referring to claim 12, Subramaniam et al. discloses a system in accordance with claim 7 wherein said connectivity device further configured to enable SPOC (Ethernet network adapter, col. 2 lines 46-53) capability within said network system.

Referring to claim 13, Subramaniam et al. discloses a system in accordance with claim 7 wherein said connectivity device further configured to function as at least one of a network fault tolerant device (Ethernet Protocol, col. 2 line 65-col. 3 line 1) and a network fault management device (Media Access Control, col. 3 lines 10-18).

7. Claims 14-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Subramaniam et al. in view of Picazo, Jr. et al.

Referring to claim 14, Subramaniam et al. discloses a network connectivity device comprising a hub module (Fig. 2, Hubs and respective portions of the spec.), a switch module (Fig. 2, Switches and respective portions of the spec.), a repeater module (Fig. 2, Repeaters and respective portions of the spec.) and a router module (Fig. 2, Routers and respective portions of the spec.), said connectivity device connected to a wire network (Fig. 2, LAN Segment 48, 52 and 56 and respective portions of the spec.) interconnecting (interconnects, col. 2 lines 45-58) a plurality of communication devices, said connectivity device (Fig. 2, Hub and col. 2 lines 59-60) configured to: utilize said hub module (Fig. 2, Hubs and respective portions of the spec.) to bring segments of the wire network together; utilize said switch module (Fig. 2, Switches and respective portions of the spec.) to provide communication transmissions by the communications devices with independent paths through the wire network such that communication collisions (collision, col. 2 line 65-col. 3 line 5) are reduced; utilize said repeater module (Fig. 2, Repeaters and respective portions of the spec.) to amplify communications transmissions such that the distance between the communications devices is extended; and utilize said router module (Fig. 2, Routers and respective

portions of the spec.) to route (route, col. 3 lines 20-29) communication transmissions through the wire network, but fails to explicitly teach of a central processing unit connected to a electronic storage device. Picazo, Jr. et al. teaches of a CPU (Fig. 2, ref. sign 144) connected to an electronic storage device (Fig. 2, ref. sign 146). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the CPU and memory of Picazo, Jr. et al. to the invention of Subramaniam et al. in order to process and transmit packets to nodes and have a place for the nodes to cache information for future transmission as suggested by Subramaniam et al.

Referring to claim 15, Subramaniam et al. discloses a network connectivity device (Fig. 2, Hubs and respective portions of the spec.) in accordance with claim 14 further configured to connect at least one communication device to a wire network (Fig. 2, LAN Segment 48, 52 and 56 and respective portions of the spec.).

Referring to claim 16, Subramaniam et al. discloses a network connectivity device in accordance with claim 14 further configured to function in a network system comprising at least one of a network hub (Fig. 2, Hubs and respective portions of the spec.), a network switch (Fig. 2, Switches and respective portions of the spec.), a network repeater (Fig. 2, Repeaters and respective portions of the spec.), and a network router (Fig. 2, Routers and respective portions of the spec.).

Referring to claim 17, Subramaniam et al. discloses a network connectivity device in accordance with claim 14 further configured to function in a network system

having a topology comprising at least one of a daisy-chain (Fig. 2, ref. sign 26) configuration, a ring configuration and a star configuration.

Referring to claim 18, Subramaniam et al. discloses a network connectivity device in accordance with claim 14 further configured to be at least one of a network fault tolerant device (Ethernet Protocol, col. 2 line 65-col. 3 line 1) and a network fault tolerant management device (Media Access Control, col. 3 lines 10-18).

Referring to claim 19, Subramaniam et al. discloses a network connectivity device in accordance with claim 14 further configured to enable SPOC (Ethernet network adapter, col. 2 lines 46-53) capabilities with a network system.

Referring to claim 20, Subramaniam et al. discloses a network connectivity device in accordance with claim 14 wherein said connectivity device (Fig. 2, Hub and col. 2 lines 59-60) is a network node utilized in a communications network system comprising a plurality of communications devices (Fig. 2, ref. signs 40, 42, 44 and col. 3 lines 1-6) interconnected by a wire network (Fig. 2, LAN Segment 48, 52 and 56 and respective portions of the spec.).

8. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Subramaniam et al. in view of Crayford.

Referring to claim 14, Subramaniam et al. discloses a network connectivity device comprising a hub module (Fig. 2, Hubs and respective portions of the spec.), a switch module (Fig. 2, Switches and respective portions of the spec.), a repeater module (Fig. 2, Repeaters and respective portions of the spec.) and a router module (Fig. 2, Routers and respective portions of the spec.), said connectivity device

connected to a wire network (Fig. 2, LAN Segment 48, 52 and 56 and respective portions of the spec.) interconnecting (interconnects, col. 2 lines 45-58) a plurality of communication devices, said connectivity device (Fig. 2, Hub and col. 2 lines 59-60) configured to: utilize said hub module (Fig. 2, Hubs and respective portions of the spec.) to bring segments of the wire network together; utilize said switch module (Fig. 2, Switches and respective portions of the spec.) to provide communication transmissions by the communications devices with independent paths through the wire network such that communication collisions (collision, col. 2 line 65-col. 3 line 5) are reduced; utilize said repeater module (Fig. 2, Repeaters and respective portions of the spec.) to amplify communications transmissions such that the distance between the communications devices is extended; and utilize said router module (Fig. 2, Routers and respective portions of the spec.) to route (route, col. 3 lines 20-29) communication transmissions through the wire network, but fails to explicitly teach of a central processing unit connected to a electronic storage device. Crayford teaches of a CPU (Fig. 3b, ref. sign 152) connected to an electronic storage device (Fig. 3b, ref. signs 154 and 156). Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to have included the CPU and memory of Crayford to the invention of Subramaniam et al. in order to allow for selective storage and transmittal of information received from the different nodes as suggested by Crayford.

Conclusion

9. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 305-3988, (for formal communications intended for entry)

Or:

(703) 305-3988 (for informal or draft communications, please label "PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA. 22202, Sixth Floor (Receptionist).

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jamal A. Fox whose telephone number is (571) 272-3143. The examiner can normally be reached on Monday-Friday 6:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on (571) 272-3134. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9315 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

Jamal A. Fox

Jamal A. Fox